

10/729027

FILE 'CAPLUS' ENTERED AT 15:49:18 ON 26 AUG 2004

L1 1727 SEA ABB=ON PLU=ON (MORAXELL? OR M OR BRANHAMELL? OR B) (W) CATA
RRHAL?
L2 47 SEA ABB=ON PLU=ON L1 AND (DLOS OR LOS OR LIPOOLIGOSACCHARIDE
OR OLIGOSACCHARIDE OR OLIGO SACCHARIDE OR LIPOOLIGO SACCHARIDE
OR OS)
L3 3 SEA ABB=ON PLU=ON L2 AND EXOTOXIN

FILE 'REGISTRY' ENTERED AT 15:50:34 ON 26 AUG 2004

E MONOPHOSPHORYL LIPID A/CN 5
L4 2 SEA ABB=ON PLU=ON "MONOPHOSPHORYL LIPID A"/CN
E TREHALOSE/CN 5
L5 1 SEA ABB=ON PLU=ON TREHALOSE/CN
E ALUM/CN 5
L6 2 SEA ABB=ON PLU=ON ALUM/CN
L7 5 SEA ABB=ON PLU=ON L4 OR L5 OR L6

FILE 'CAPLUS' ENTERED AT 15:50:50 ON 26 AUG 2004

L8 1 SEA ABB=ON PLU=ON L3 AND (L4 OR LIPID A OR TREHALOSE OR
ALUM)

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 29 Jul 1999

ACCESSION NUMBER: 1999:464181 CAPLUS

DOCUMENT NUMBER: 131:86860

TITLE: **Lipooligosaccharide-based vaccine for
prevention of Moraxella (Branhamella)
catarrhalis infections in mammals**

INVENTOR(S): Gu, Xin-Xing; Robbins, John B.

PATENT ASSIGNEE(S): The Government of the United States of America,
Department of Health and Human, USA

SOURCE: PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9936086	A1	19990722	WO 1999-US590	19990112
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2315746	AA	19990722	CA 1999-2315746	19990112
AU 9922212	A1	19990802	AU 1999-22212	19990112
BR 9906902	A	20001017	BR 1999-6902	19990112
EP 1047447	A1	20001102	EP 1999-902170	19990112
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			

Searcher : Shears 571-272-2528

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JP 2002509115	T2	20020326	JP 2000-539859	19990112
US 6685949	B1	20040203	US 2000-610034	20000705
US 2004126381	A1	20040701	US 2003-688115	20031017
US 2004115214	A1	20040617	US 2003-729027	20031205
PRIORITY APPLN. INFO.:			US 1998-71483P	P 19980113
			US 1996-16020P	P 19960423
			US 1997-842409	A3 19970423
			WO 1999-US590	W 19990112
			US 2000-610034	A2 20000705
			US 2001-789017	A2 20010220
			US 2001-288695P	P 20010503
			WO 2001-US32331	A1 20011016

AB A conjugate vaccine for **Moraxella catarrhalis** comprising isolated **lipooligosaccharide** from which esterified fatty acids have been removed, to produce a detoxified **lipooligosaccharide** (dLOS), or from which **lipid A** has been removed, to produce a detoxified **oligosaccharide** (OS), which is linked to an immunogenic carrier. The immunogenic carrier is selected from the group consisting of UspA or CD derived from **M. catarrhalis**, tetanus toxoid, HMP derived from Haemophilus influenza, diphtheria toxoid, detoxified P. aeruginosa toxin A, cholera toxin, pertussis toxin, hepatitis B surface or core antigen, rotavirus VP 7 protein, CRM, CRM197, CRM3201 and respiratory syncytial virus F and G protein. The vaccine is useful for preventing otitis media and respiratory infections caused by **M. catarrhalis** in mammals, including humans.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 15:52:15 ON 26 AUG 2004)

L9 1 S L8

L9 ANSWER 1 OF 1 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1999-444322 [37] WPIDS
CROSS REFERENCE: 2001-272747 [28]; 2002-163687 [21]; 2003-129162 [12];
2004-516882 [49]
DOC. NO. CPI: C1999-130893
TITLE: Detoxified **lipooligosaccharide**-based vaccine
for prevention of **Moraxella catarrhalis**
infections in mammals.
DERWENT CLASS: B04 D16
INVENTOR(S): GU, X; ROBBINS, J B
PATENT ASSIGNEE(S): (USSH) US DEPT HEALTH & HUMAN SERVICES; (GUXX-I) GU X;
(ROBB-I) ROBBINS J B
COUNTRY COUNT: 85
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG																	
WO 9936086	A1	19990722	(199937)*	EN	60																	
RW:	AT	BE	CH	CY	DE	DK	EA	ES	FI	FR	GB	GH	GM	GR	IE	IT	KE	LS	LU	MC	MW	NL
	OA	PT	SD	SE	SZ	UG	ZW															
W:	AL	AM	AT	AU	AZ	BA	BB	BG	BR	BY	CA	CH	CN	CU	CZ	DE	DK	EE	ES	FI	GB	GD
	GE	GH	GM	HR	HU	ID	IL	IN	IS	JP	KE	KG	KP	KR	KZ	LC	LK	LR	LS	LT	LU	LV
	MD	MG	MK	MN	MW	MX	NO	NZ	PL	PT	RO	RU	SD	SE	SG	SI	SK	SL	TJ	TM	TR	TT

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UA UG US UZ VN YU ZW
 AU 9922212 A 19990802 (199954)
 BR 9906902 A 20001017 (200056)
 EP 1047447 A1 20001102 (200056) EN
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
 CN 1288384 A 20010321 (200137)
 KR 2001034124 A 20010425 (200164)
 MX 2000006678 A1 20010201 (200168)
 JP 2002509115 W 20020326 (200236) 66
 US 6685949 B1 20040203 (200413)
 US 2004115214 A1 20040617 (200440)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9936086	A1	WO 1999-US590	19990112
AU 9922212	A	AU 1999-22212	19990112
BR 9906902	A	BR 1999-6902	19990112
		WO 1999-US590	19990112
EP 1047447	A1	EP 1999-902170	19990112
		WO 1999-US590	19990112
CN 1288384	A	CN 1999-802142	19990112
KR 2001034124	A	KR 2000-707737	20000713
MX 2000006678	A1	MX 2000-6678	20000706
JP 2002509115	W	WO 1999-US590	19990112
		JP 2000-539859	19990112
US 6685949	B1 Provisional Cont of	US 1998-71483P	19980113
		WO 1999-US590	19990112
		US 2000-610034	20000705
US 2004115214	A1 Provisional Cont of Div ex	US 1998-71483P	19980113
		WO 1999-US590	19990112
		US 2000-610034	20000705
		US 2003-729027	20031205

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9922212	A Based on	WO 9936086
BR 9906902	A Based on	WO 9936086
EP 1047447	A1 Based on	WO 9936086
JP 2002509115	W Based on	WO 9936086
US 2004115214	A1 Div ex	US 6685949

PRIORITY APPLN. INFO: US 1998-71483P 19980113; US
 2000-610034 20000705; US
 2003-729027 20031205

AN 1999-444322 [37] WPIDS
 CR 2001-272747 [28]; 2002-163687 [21]; 2003-129162 [12]; 2004-516882 [49]
 AB WO 9936086 A UPAB: 20040802
 NOVELTY - A lipooligosaccharide (LOS) isolated from
 Moraxella catarrhalis and detoxified by removal of
 ester-linked fatty acids to produce detoxified LOS (dLOS
) or treated to remove lipid A to produce
 oligosaccharide (OS) is new.

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DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for a conjugate vaccine for **M. catarrhalis** comprising **dLOS** or **OS**, and a covalently linked immunogenic carrier as above; methods of detoxifying **LOS** isolated from **M. catarrhalis**, by removal of ester-linked fatty acids; methods of making a conjugate vaccine as above.

ACTIVITY - Immunoprotective; Auditory; Antibacterial.

MECHANISM OF ACTION - Vaccine.

USE - The methods are useful for isolation of detoxified **lipooligosaccharide** or **oligosaccharide** from **M. catarrhalis**. The detoxified **lipooligosaccharide** or **oligosaccharide** are useful in conjugate vaccines. The vaccine is useful for protection against **M. catarrhalis** which causes otitis media and respiratory infections.

ADVANTAGE - The invention provides a detoxified **lipooligosaccharide** from **M. catarrhalis**, the major virulence factor for pathogenesis of bacterial infections. When tested by the standard *Limulus* amebocyte lysate assay, the isolated **LOS** showed 2×10^4 EU/ μ g, whereas the **dLOS** showed 1 EU/ μ g, representing a 20000-fold reduction of toxicity.
Dwg.0/3

FILE 'HOME' ENTERED AT 15:53:21 ON 26 AUG 2004